

Remarks

In view of the above amendments and the following remarks, reconsideration and further examination are requested.

Claim 10 has been rejected under 35 U.S.C. §103(a) as being unpatentable over Diwoky (US 2,326,525) in view of Endoh (US 6,234,787). Claims 12 and 13 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Diwoky in view of Endoh and further in view of Pritchard (US 5,462,429).

Claims 1-9, 19-22 and 27 have been allowed. The Applicants would like to thank the Examiner for this indication of allowable subject matter.

Claims 10 and 13 have been amended so as to further distinguish the present from the references relied upon in the above-mentioned rejections. As a result, the rejections are no longer applicable for the following reasons.

Claim 10 is patentable over the combination of Diwoky and Endoh, since claim 10 recites a waste gas treatment system including, in part, a burner part with a cylindrical member having an inner wall, being closed at a top thereof and having an opening at a bottom thereof, the cylindrical member having a waste gas inlet in the top thereof for introducing waste gas into combustion flames, and a dust remover having a dust scraping plate secured to a shaft so as to be moved vertically during operation in at least one of the burner part and a combustion chamber, the dust scraping plate having a hole which corresponds to and is larger than an opening of the waste gas inlet. The combination of Diwoky and Endoh fails to disclose or suggest the dust scraping plate as recited in claim 10.

Diwoky discloses an apparatus for cracking hydrocarbons. The apparatus includes a reaction chamber 10 connected to a pipe section 16 having a pipe 19 therein. An end of the pipe 19 located near the reaction chamber 10 is connected to a plunger element 31 via an upper casing 24 and a lower casing 25. The lower casing 25 has a number of nozzles 30 for discharging oil to remove debris. The plunger element 31 operates to dislodge coke formations and to protect the nozzles 30. Further, in a second embodiment, the fluid nozzles and plunger element are combined into a combination plunger and nozzle member 33 which has a number of openings 34 for discharging fluid. (See page 1, column 2, line 42 - page 2, column 1, line 60 and Figures 1 and 4).

In the rejection, the plunger element 31 is indicated as corresponding to the claimed dust scraping plate. However, it is apparent that the plunger element 31 does not have a hole which corresponds to and is larger than an opening of a waste gas inlet. Instead, the plunger element 31 is a completely solid element. In addition, the combination plunger and nozzle member 33 also does not correspond to the claimed dust scraping plate, since the openings 34 are for fluid discharge and none are disclosed or suggested as corresponding to and being larger than the opening of a waste gas inlet. Therefore, in order for the combination of Diwoky and Endoh to render claim 10 obvious, Endoh must disclose or suggest the claimed dust scraping plate.

Endoh discloses a detoxifying apparatus with a double walled combustion chamber 1 including an outer barrel 11 and a porous inner barrel 12, a burner 2 located in the top of the combustion chamber 1, and an igniting pilot burner 3 and a gas introducing nozzle 4 located opposite to each other. (See column 3, line 1 - column 4, line 10 and Figures 1-4). While Endoh is relied upon in the combination as disclosing a burner part, it is apparent that Endoh fails to disclose or suggest the claimed dust scraping plate. As a result, the combination of Diwoky and Endoh fails to render claim 10 obvious.

As for Pritchard, it is relied upon as disclosing spraying a fluid along an interior surface of a combustion chamber to remove accumulated particles. However, it is apparent that Pritchard also fails to disclose or suggest the claimed dust scraping plate.

Further, it is apparent that it would not have been obvious to combine Pritchard with Diwoky as suggested in the rejection because although Pritchard discloses that high pressure air was used in an attempt to remove debris, it also discloses that the air did not satisfactorily remove the debris. (See column 2, lines 33-41). As a result, it would not have been obvious to one of ordinary skill in the art to use air instead of the fluid ejected from the nozzles 30 disclosed in Diwoky.

Because of the above-mentioned distinctions, it is believed clear that claims 1-10, 12, 13, 19-22 and 27 are patentable over the references relied upon in the rejections. Furthermore, it is submitted that the distinctions are such that a person having ordinary skill in the art at the time of invention would not have been motivated to make any combination of the references of record in such a manner as to result in, or otherwise render obvious, the present invention as recited in claims

1-10, 12, 13, 19-22 and 27. Therefore, it is submitted that claims 1-10, 12, 13, 19-22 and 27 are clearly allowable over the prior art of record.

In view of the above amendments and remarks, it is submitted that the present application is now in condition for allowance. The Examiner is invited to contact the undersigned by telephone if it is felt that there are issues remaining which must be resolved before allowance of the application.

Respectfully submitted,

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